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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/817,958 | 03/26/2001 | Qiming Chen | 10006528-1 | 9842 |

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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

REFAI, RAMSEY

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2154

DATE MAILED: 01/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------------------|-----------------------------|--|
| Office Action Summary | Application No. 09/817,958 | Applicant(s) CHEN ET AL. | |
| | Examiner Ramsey Refai | Art Unit 2154 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This action is responsive to amendment received on October 12, 2004. Claim 1 has been amended. Claims 1-20 are pending.

Drawings

2. Applicant's request for withdrawal of the objection to the drawings under 37 CFR 1.84(p)(5) is persuasive and, therefore, the objection to the drawings is withdrawn.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4 and 6-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aggarwal et al (U.S. Patent No. 6,415,318) in view of Massarani (U.S. Patent No. 6,393,484).

5. As per claim 1, Aggarwal et al teach a method for enabling communication between a first agent in a first domain and a second agent in a second domain comprising the steps of:

a coordinator in the first domain (column 2, lines 34-45 and Figure 2, 68; the bridgehead server coordinates the messages by directing to the appropriate client) a send-message service (column 2, lines 24-45) with a service bus (column 2, line 35-45; network); and

the second agent in the second domain communicating with first agent by employing the service bus, the registered send-message service, and the coordinator in the first domain; wherein the method solves the interface diversity problem and does not require a central coordinator (column 3, lines 4-9 and column 10, lines 10-26; the bridgehead server performs these tasks so no central coordinator is needed).

6. Aggarwal et al fail to show a method of registering a service.

7. However Massarani shows a network that includes a DHCP (Dynamic Host Control Protocol) server that registers users by assigning IP addresses (abstract). It would have been obvious to one of the ordinary skill in the art at the time of the applicant's invention to combine the teachings of Aggarwal et al and Massarani to create a method for enabling communication between a first agent and a second agent by registering a message service because would provide for automated registering of services with a network allowing new services with a network to be added without user intervention.

8. As per claim 2, Aggarwal et al teach a method wherein the step of the second agent in the second domain communicating with first agent by employing the service bus, the registered send-message service, and the coordinator in the first domain includes

the coordinator providing a client-side interface for the send-message service that can be employed by other agents in different domains to communicate with the agents in the first domain; and the second agent in a second domain communicating with an agent in the first domain by employing the client-side interface for the send-message service of the coordinator (column 9, line 60-column 10 line 9).

9. As per claim 3, Aggarwal et al teach a method wherein the step of the second agent in a second domain communicating with an agent in the first domain by employing the client-side interface for the send-message service of the coordinator includes

directing a message from the second agent to the coordinator, which serves as a point of presence for agents in the first domain and the coordinator receiving the message and forwarding the message to the intended recipient agent (column 10, lines 10-26).

10. As per claim 4, Aggarwal et al teach a method wherein the coordinator is a point-of-presence for communication directed to agents in the first domain by agents external to the first domain (column 1, lines 14-19; a bridgehead server located inside the recipient's network).

11. As per claim 6, Aggarwal et al teach a method wherein the service bus is the HTTP service bus (column 6, lines 22-36).

12. As per claim 7, Aggarwal et al teach a method wherein the service bus provides one of dynamic firewall transversal services, access control services, security services, billing services;

authentication services, authorization services, and other predefined infrastructure services (column 6, line 49- column 7 line 2).

13. As per claim 8, Aggarwal et al teach a method wherein the coordinator provides one of naming services, resource directory services, and send-message service (column 2, lines 34-45).

14. As per claim 9, Aggarwal et al teach a method wherein the step of directing a message from the second agent includes invoking a send-message (this inherent in message service software/program because in order to use the service to communicate to others you must be able to activate a send message) provided by the service bus (network); wherein the step of the coordinator receiving the message and forwarding the message to the intended recipient agent includes employing a local naming service to forward the message to the first agent (column 2, lines 34-45 and column 3, 23-37).

15. As per claim 10, Aggarwal et al teach a method wherein the step of invoking a send-message service provided by the service bus includes specifying a domain name and receiver agent name (column 8, lines 56-67).

16. As per claim 11, Aggarwal et al teach a method wherein the first agent and the second agent communicate in a publish and subscribe mode (column 8, lines 50-55; the sending client can publish messages without explicitly specifying recipients or having knowledge of intended recipients).

17. As per claim 12, Aggarwal et al teach a method wherein the first domain is a first enterprise and the second domain is a second enterprise (column 6, lines 39-48).

18. As per claims 13-17, contain similar limitations as claims 1-12 above, therefore are rejected under the same rationale.

19. As per claim 18, Aggarwal et al teach a method for enabling inter-enterprise agent communication comprising the steps of:

- a) grouping agents into a first group in a first domain; (Figure 2, clients 64 grouped into domain 60A)

- b) assigning a coordinator to the agents in the first group; (column 14, lines 36-40 and Figure 2, 68; bridgehead server)

- c) send-message service of the coordinator with a service bus; (column 2, line 23-45)

- d) the coordinator receiving messages from a second domain; wherein the messages are directed to an agent in the first group; (column 14, lines 36-40) and

- e) the coordinator forwarding the messages to an intended recipient agent; wherein the service bus provides inter-enterprise communication services between the first domain and the second domain (column 3, lines 4-9 and column 10, lines 10-26).

20. Aggarwal et al fail to show a method of registering a service.

21. However Massarani shows a network that includes a DHCP (Dynamic Host Control Protocol) server that registers users by assigning IP addresses (abstract). It would have been obvious to one of the ordinary skill in the art at the time of the applicant's invention to combine

the teachings of Aggarwal et al and Massarani to create a method for enabling communication between a first agent and a second agent by registering a message service because doing so would provide agents the ability to communicate using messages

22. As per claims 19 and 20, they contain the same limitations as claims 12 and 7, therefore are rejected under the same rationale.

23. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aggarwal et al (U.S. Patent No. 6,415,318) in view of Massarani (U.S. Patent No. 6,393,484) as applied to claim 1 above, and further in view of Wray et al (U.S. Application No. US 20010005883).

24. As per claim 5, Aggarwal et al and Massarani fail to teach a method wherein the service bus is the E-speak service bus.

25. However, Wray et al teach the use of E-speak technology (page 10, paragraph 149 line 1 – paragraph 150, line 12).

It would have been obvious to one of the ordinary skill in the art at the time of the applicant's invention to combine the teachings of Aggarwal et al, Massarani, and Wray et al to create a method that uses a bus with E-speak technology because doing so would reduce the time and effort to produce e-services with a common operating environment in which to conduct business.

Response to Arguments

26. Applicant's arguments filed have been fully considered but they are not persuasive.

- In the remarks, the applicant argues in substance that:
 - A. the Examiner's conclusion of obviousness based on hindsight;
 - B. the Aggarwal reference does not disclose or suggest a coordinator in a first domain;
 - C. the Massarani reference does not mention a send-message service;
 - D. the Examiner's rationale for combining the references appears to be based on potential advantages hypothesized by the Examiner, not on the teachings in the references themselves; and
 - E. the Examiner used the Wray reference to teach the failure of the Aggarwal reference to teach a system bus, but the Wray reference simply describes that the security protocol may be utilized with E-speak technology.
- In response to:
 - A. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

B. The examiner respectfully disagrees because the Aggarwal reference does teach a coordinator (**Figure 2, 68; bridgehead server**) in a first domain (**Figure 2, 60A and 60B**). The bridgehead servers in a first organization coordinate messages by resolving addresses of the messaging server to which these messages are addressed to. The bridgehead server coordinates messages to their appropriate message server by comparing the information identifying the recipient with directory information (**column 2, lines 34-45 and Figure 2**).

C. The examiner agrees that the Massarani reference does not mention a send-message service. The Massarani reference was used due to the failure of the Aggarwal reference to teach registering a service (**abstract**), not the failure to teach a send-message service, which is taught in the Aggarwal reference (**column 8, lines 12-33, column 2, lines 24-45, abstract and column 1, lines 14-31**).

D. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the Aggarwal reference uses a coordinator (bridgehead server) that coordinates messages from clients by sending these messages to the appropriate messaging servers to which the recipient client is assigned to (**abstract and column 2, lines 15-67**). The Aggarwal reference fails to teach registering a service. However, the Massarani reference teaches the registering users and devices with a service by providing identification for login and

passwords (**abstract**). It would have been obvious to combine these references because doing so would allow for clients to register with a message server that provides a message service which would allow clients to communicate with other clients within the same organization or another organization.

E. The examiner respectfully disagrees because the Wray reference was not used due to the failure to show a service bus (**system bus shown in Aggarwal, column 2, lines 35-45; network**) but for the failure of the Aggarwal reference to show the use of E-speak on a service bus (**Office Action, page 7**). The Wray reference teaches the use of E-Speak technology on a broker system between a client web browser and a remotely located broker application. (**paragraphs [0149-0154] and Figure 14-16**). It would have been obvious to combine the teachings of Aggarwal et al, Massarani, and Wray et al to create a method that uses a bus with E-speak technology because doing so would reduce the time and effort to produce e-services with a common operating environment in which to conduct business.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramsey Refai whose telephone number is (571) 272-3975. The examiner can normally be reached on M-F 8:30 - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ramsey Refai
Examiner
Art Unit 2154

RR
January 10, 2005



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